965

General publication

SAFETY AFLOAT

FOR OWNERS OF SMALL BOATS

Department of Transport • Canada

Information Services Division

COVER PHOTO

Scene at Edmonds Locks

Rideau Canal System,
near Smiths Falls, Ontario.

DEPARTMENT OF TRANSPORT, OTTAWA, CANADA
1965

SAFETY AFLOAT

For Owners of Small Boats

Safety Afloat, 1965, which supersedes all previous editions is based on the Small Vessel Regulations and other statutes: Those who require the full text of the various laws on small boat operation should consult the following references, obtainable from the Queen's Printer, Ottawa, at the prices shown.

SOR /62-154	Small Vessel Regulations	35¢
Chap. 43	An Act to amend the Criminal Code (assented to 13 July 1963)	35¢
Chap. 193	The Navigable Waters Protection Act	35¢
SOR /62-319	Upper Niagara River Regulations	25¢
SOR /62-46	Private Buoy Regulations	25¢
SOR /54-586	Regatta and Marine Parade Safety Regulations	25¢
PC 1960-664	Department of Transport Canal Regulations	25¢

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This booklet has been prepared to spread knowledge of the Small Vessel Regulations — knowledge that can drastically cut the needless toll in property damage and human suffering, and make for safety afloat for you, your family and others.

It asks two basic questions:

— Is your boat properly equipped?

— Do you observe the Regulations and "Rules of the Road"?

Numbering or Licensing your boat

You have just bought a boat, or are about to buy one, and you are asking yourself: "What do I do next"?

If you buy a car, the first thing you do is to license it. This is also true of pleasure boats which have propelling power, either inboard or outboard, of 10 horsepower or more and do not exceed 20 tons registered tonnage.

Non compliance with this requirement entails a fine of up to $100. You must get a licence before the boat is operated on the water. If your motor is less than 10 horsepower, you need not get a licence, but many owners of small boats find it useful to get one anyway since it helps in cases of theft and accident.

Where do I get a licence?

Licenses can be obtained, without charge from a Customs Officer at any Customs and Excise office.

Pleasure vessels over 20 tons do not need a licence but are, instead, required to be registered with the Registrar of Shipping, Department of Transport, in Ottawa or any other established port of registry.

When my boat has been licensed, what else do I have to do?

Before the boat is operated, the licence number issued must be marked in ***block characters*** in a colour

contrasting to their background and *NOT LESS THAN 3 INCHES* in height:

(a) on each bow, or

(b) on a board or boards permanently attached to the boat so that the number is clearly visible from each side.

What do I do if I sell or transfer ownership?

The license number allotted to your boat when first licensed remains with the boat even if you sell it. Although the number remains the license itself must be transferred to the new owner and you should proceed as follows:

(a) Sign and deliver to the new owner the transfer form located on the back of the existing license; and

(b) give notice in writing of the transfer of ownership to the Customs House that issued the existing license, specifying the license number and the name and address of the new owner.

What does the new purchaser do?

The new owner of the boat completes the transfer form on the back of the license and delivers it to the Customs House of original issue. On receipt of this transferred license the Customs House will issue the new owner with a new Vessel License bearing the original license number. If the old Vessel License has been lost or mislaid, the new owner will complete an application giving the existing license number.

What happens if a boat is destroyed or abandoned?

Return the license form to the Customs Office that issued it and state reasons for doing so.

OVERLOADING AND OVERPOWERING

When you buy a boat you should always make sure that it is suitable for its purpose. The following points should be very carefully considered:

(a) is it large enough?

(b) will it carry safely the number of persons that I wish to have with me?

(c) will it be capable of carrying the power I wish to use?

(d) is it properly designed and strongly built?

(e) will it be seaworthy in high winds and rough water?

If there is any doubt whatsoever, obtain advice from a naval architect or a reputable boat builder.

Overloading of Rowboats

Overloading is dangerous. Because there are so many types of small boats, specific advice to cover all contingencies about overloading is not practical. How many people can be safely carried depends on several factors: type of boat, distribution of passengers and other equipment to be carried, etc. Common sense should rate highly here.

The Department of Transport issues, as a rough guide only, the following notice for posting at holiday resorts, boat hiring stations and camp sites.

Length of Boat	*Numbers of Persons*	*Max. Weight Load*
10′	2	410 lbs.
12′	3	575 lbs.
14′	4	740 lbs.
16′	5	975 lbs.

For rough water conditions it would be advisable to remove one person from the boat before starting out. However, common sense should dictate whether the boat should put out at all in very bad weather.

Overloading and overpowering of power boats

Although the above rules may be considered as a guide to the loading of rowboats, they do not apply when a motor is attached to the boat. It is particularly important that an inexperienced person should be careful when attaching his motor to a hired boat. Concentrating on starting his motor, he frequently ignores the rudder position so that the quick turn, made by the boat on starting, results in a capsize.

The desirability of having a sound recommendation on the loading and powering of small outboard boats is of such importance that this is now required by regulations.

RECOMMENDED SAFE LOAD AND HORSEPOWER

The law requires that every pleasure boat 16 feet long, or under, powered with an outboard motor or motors totalling 10 horsepower or more, shall carry a plate issued by the Department of Transport stating the maximum load and horsepower recommended for it.

These plates are dark blue with silver lettering and carry this wording:

CANADA

DEPARTMENT OF TRANSPORT — *MINISTÈRE DES TRANSPORTS*

RECOMMENDED MAXIMUM LIMITATIONS

LIMITATIONS MAXIMUMS RECOMMANDÉES

This boat should carry safely in normal operating conditions, passengers, equipment and motors representing a **GROSS LOAD** and **MAXIMUM HORSEPOWER** not exceeding:

Cette embarcation devrait pouvoir transporter sans danger, en utilisation normale, des passagers, du matériel et des moteurs représentant une ***CHARGE BRUTE*** *et une* ***PUISSANCE MAXIMUM*** *d'au plus:*

NO.—N°	H.P. ch.	BUILDER—*CONSTRUCTEUR*
	Lbs. *Liv.*	MODEL—*MODÈLE*

ADVERSE CONDITIONS REDUCE CAPACITY

LES CONDITIONS DÉFAVORABLES RÉDUISENT LA CAPACITÉ

Applications for these plates are obtainable from any Customs Office, Steamship Inspection Office, or from the Department of Transport, Ottawa, Fill in all particulars, including the measurements asked for, and send the form, in the addressed postage free envelope provided, to Ottawa, together with the fee of $1.00.

The plate will be sent to you as soon as possible, and should be affixed to your boat in an easily visible position. It is good for the life of the boat, and does not need to be renewed.

These plates are intended only as a guide to boaters, particularly those without a great deal of experience in handling power craft, and should not be taken as giving a firm indication of the safe capacities of boats in all circumstances. It is obvious that a safe load in calm water may be a dangerous overload in rough water. Similarly, while it may be dangerous to operate a par-

ticular boat under high power when it is carrying several people, it may be quite safe to operate it under the same power with only one or two persons aboard. It is also recognized that, when used in certain favourable conditions and particularly when under the control of experienced boaters, many boats can be safely operated with loads heavier than those recommended or with engines of greater power than those recommended. Accordingly, there is no legal compulsion to observe the recommendations contained in the plates, although all boaters are urged to remain within these limits unless they know by experience that the limits may be exceeded with safety in the prevailing circumstances.

Many Canadian boatbuilders and distributors sell their boats complete with D.O.T. load and capacity plates.

United States Tourists in Canada

Visiting United States pleasure boats equipped in accordance with the relevant United States laws are considered to comply with the Canadian regulations. Such equipment must be in satisfactory condition and must be used only in the boat with which it was imported. A boat brought into Canada by a United States tourist and not remaining in Canada is not required to have a Canadian license or Department of Transport boat capacity plate, provided that the usual Customs permit is obtained.

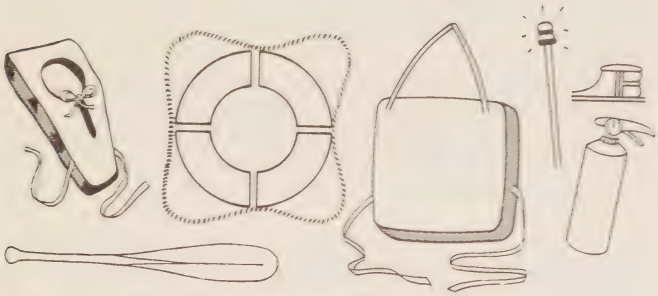
Citizens of the United States or other non-Canadians who maintain their boats permanently in Canada are required to comply with the Canadian regulations in all respects.

Canadian Tourists in the United States

Canadian pleasure boats temporarily using navigable waters of the United States may carry equipment as required by the Canadian Small Vessel Regulations in lieu of the equipment which would otherwise be required by the United States Motor Boat Act.

However, owners of Canadian pleasure boats who intend to cruise in United States waters should obtain a copy of the relevant State Boating Laws, because the Motor Boat Act is not applicable to all waters of the United States and State regulations may differ from the

Motor Boat Act and from regulations of other States of the Union.



What lifesaving equipment must I carry?

Canadian owned pleasure boats, or boats wholly maintained in Canada, must comply with the regulations and all lifesaving equipment must bear the approval of the Department of Transport. No other equipment will be accepted.

Pleasure boats registered or licensed outside Canada may carry, in lieu of the lifejackets prescribed, lifejackets approved by the country where they are registered or licensed.

FIRE EXTINGUISHERS

Fire extinguishers required by Small Vessel Regulations shall be of a type approved for marine use by:

(1) Underwriters Laboratories, Inc.

(2) Underwriters Laboratories of Canada, or

(3) The British Ministry of Transport or Ministry of Civil Aviation

There are three types of fires, designated Class "A", "B" and "C", for which the most suitable approved extinguishers carry the corresponding letter on the approval label.

Class "A" fires occur in ordinary combustible material such as wood, cloth and paper, Class "A" extinguishers usually contain a large percentage of water and are effective against such fires.

Class "B" fires occur in flammable liquids and substances such as gasoline, oils, fats, etc. A "B" type extinguisher, such as carbon dioxide, dry chemical, or

foam should be used on this type of fire. "A" type extinguishers, discharging a jet of water, should not be used on "B" types fires, as the water may react violently with the burning oil or gasoline, thereby spreading the fire.

Class "C" fires occur in electrical equipment and, unless the source of electrical power is disconnected, it is essential that the extinguishing agent be a non-conductor of electricity. Extinguishers having a "C" classification such as carbon dioxide or dry chemical are suitable for electrical fires.

Foam, carbon dioxide and dry chemical fire extinguishers may be accepted in smaller units than those required by these regulations if sufficient numbers are provided to give the total capacity required.

Leakage of Gas

Inboard engines that use gasoline as a fuel must be fitted to prevent gasoline from leaking into the bilge. This may be done by fitting a drip pan, covered with wire gauze, under the carburetor and, in the case of inboard engines which are installed below deck or are boxed in, by the use of flame arresters.

Ventilation of Power Boats

The Small Vessel Regulations require that any enclosed space, in which an inboard gasoline engine is installed, shall be efficiently ventilated by the installation of suitable ventilators or an exhaust fan.

Accidents are liable to happen when an enclosed engine space is inadequately ventilated and contains an accummulation of gasoline vapours. Accidental explosions generally occur during the process of starting the engine and usually produce disastrous results.

Efficient ventilation of enclosed engine compartments may be achieved by the following methods:

Four permanently open ducts, extending to the bilge level of the compartment, should be installed with two of these leading to the sides at one end of the compartment and the other two to the sides at the other end. Care should be taken that in boats with deep V bottoms, no pockets of gas accumulate due to lack of proper ventilation.

Each duct opening should be the same size and it is

recommended that the minimum area of a duct opening should be equivalent to one square inch per foot of beam. The exterior ends of the ducts should have unobstructed cowls or equivalent fittings with openings at least equal in area to the ducts.

It is preferable for the two ducts at the after end of the compartment to serve as inlets and the two at the forward end to serve as outlets. The cowls of the after ducts should be trimmed forward and should be at least four inches higher than those at the forward end, which should be trimmed aft.

The outlet ventilating ducts may, if desired, be fitted with wind-actuated self trimming or rotary exhauster heads, or with a power operated exhaust fan.

If a power operated exhaust fan is fitted, the electric motor and the switch for operating the fan should be installed outside of the ventilation duct and preferably outside of the machinery space. Where this is impracticable, the motor and/or the switch may be installed within the machinery space if they are explosion-proof. A good location for the fan is just under the deck at the side.

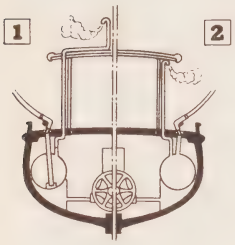
Care should be taken to run an exhaust fan for about five minutes before attempting to start the engine.

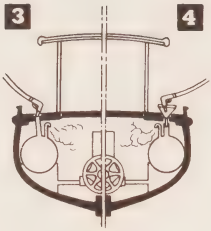
Precautions when fuelling

1. Take portable tanks ashore.
2. No smoking.
3. Boat securely moored.
4. Hatches and doors closed.
5. No electrical switching.
6. Extinguish open flames.
7. Passengers ashore.
8. Hold nozzle firmly against fill pipe.
9. Don't overfill.
10. Wipe up any spillage.
11. Open up and ventilate.
12. Test. Use your nose.
13. Start engines.
14. Passengers re-embark.
15. Cast off.

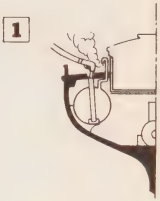
PREVENT FIRES ON POWER BOATS

TYPES OF INSTALLATIONS





DANGEROUS
(SHOULD BE CHANGED)



DANGEROUS
(SHOULD BE CHANGED)

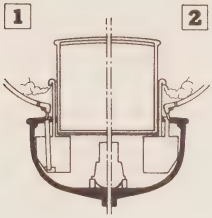
1 BEST INSTALLATION: Fill pipes firmly attached to tight deck plate. Fill pipe extends to bottom of tank, with well to form liquid seal. Vent pipe discharges to open air, away from all hull openings, hatches, doors, windows, ports, etc. Outboard end of vent screened.

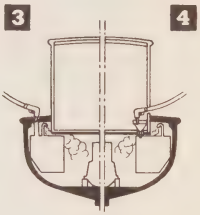
2 FAIRLY GOOD INSTALLATION: Fill pipes firmly attached to tight deck plates but not extended to bottom of tank, with liquid seal well. Tank can be exploded from ignited fill pipe. Vent led to open air with screened outboard end. Location of the vent outlet should be kept clear of all hull openings.

NOTE: All open fires such as stoves & heaters, and all naked lights including fuel operated refrigerators must be extinguished; also all hatches & ports opening

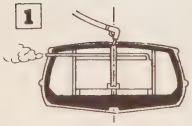
ALL BOATS WITH BUILT-IN FUEL TANKS SHOULD HAVE THE FUEL SYSTEMS GROUNDED

DANGEROUS
(SHOULD BE CHANGED)





DANGEROUS
(SHOULD BE CHANGED)



DANGEROUS
(SHOULD BE CHANGED)

3 DANGEROUS INSTALLATION: Fill pipes firmly attached to deck plates, but vent pipes discharge all vapors to inside of boat. Fumes may be ignited by a backfire, a lit match, by electrical apparatus of any kind, or by a fire in the galley stove. Unless vent pipe is led to open air, a tight deck fill pipe is NO protection.

4 VERY DANGEROUS INSTALLATION: Both fill pipe and vent pipe end inside of hull. All vapors escape to interior of boat. Tank will overflow in filling and spill liquid fuel to bilge. Possible static spark from fill connections or funnel may ignite gasoline.
DO NOT PLACE FILL PIPES INSIDE OF DECK HOUSES OR COCKPITS.
DO NOT USE SMALL DIAMETER TUBING FOR VENTS. THEY WILL CAUSE BUBBLING AND SPILLING AT THE FILL PIPES.

into cabins and below decks must be closed before commencing to fill gas tanks. NO SMOKING shall be allowed either on the wharf or boat during this time.

LIFEJACKETS

For many years the only lifejacket regulated and approved by the Department was the familiar two-pad standard type intended for use in large commercial ships. In 1954, because of the growth of pleasure boating, the Department consulted with lifejacket manufacturers to bring small craft lifejackets also under inspection. Numerous lifejackets of this type had appeared on the market and it was obviously desirable to set up standards upon which the Canadian public could rely.

Many tests were carried out on lifejackets of all kinds, during which advice was sought from individuals and groups having wide experience in water safety. So useful was the knowledge contributed by these people that a Committee on Lifejacket Specifications was formally constituted in 1957 under the auspices of the Canadian Government Specifications Board section of the National Research Council.

This committee includes members from boating federations, power squadrons, officers of the Marine Regulations Branch of the Department, representatives of the lifejacket, textile and chemical manufacturers, Boy Scout Associations; Canadian Red Cross, police and other groups interested in lifejacket production and use.

Any lifejacket manufacturer wishing to obtain Government approval of his product submits samples to the Department. These sample lifejackets are tested in accordance with the specification requirements, and are further tested by a Government inspector personally in deep water. Where a child's lifejacket is under consideration it is tested on a child of appropriate size under carefully controlled conditions.

If the lifejacket passes all its tests it is granted an approval number and one sample model is returned to the manufacturer to be retained at his factory. Departmental inspectors visit the factory at regular intervals and compare any lifejacket under manufacture with this approved sample to ensure maintenance of standards. As a further precaution the Department periodically purchases approved lifejackets from stores all across Canada and sends these to Ottawa for further testing.

The work of this committee has resulted in the

production of two basic styles of lifejacket. Each lifejacket bears a label indicating Departmental approval and the weight range of the person for whom it is intended. When you are buying a lifejacket make sure that it is the model appropriate to your weight. Try it on to see that it is a comfortable fit and that the tapes can be easily adjusted.

Having purchased your lifejacket, try it out. Wade into water about chest-deep, and gradually bend your knees until you feel the lifejacket begins to support you. In a very few minutes you will determine the capabilities of your lifejacket. Remember, it has no supernatural power; it is only a device to provide your body with buoyancy, and you should become acquainted with its possibilities just as with any other unfamiliar device upon which your life may some day depend.

The above advice is particularly true in the case of young children. Parents should take a few minutes to help their child learn what a lifejacket will do, and to persuade him, for example, to allow his legs to hang downwards in the water rather than to curl himself up in a ball as a frightened child is apt to do, or to attempt in panic to "climb up" out of the water and so unbalance himself. They will be well rewarded by having increased the child's confidence, and with it, his safety.

THE MOST IMPORTANT THING TO REMEMBER IS THAT HOWEVER GOOD A LIFEJACKET MAY BE, IT IS NO SUBSTITUTE FOR PARENTAL VIGILANCE.

As far as toddlers are concerned, they can drown if they fall face downwards in a few inches of water. Their arms are not yet strong enough to lift their bodies out of the water, so don't allow them out of your sight whether they are wearing lifejackets or not.

REMEMBER

Do buy an approved lifejacket.

Make sure it is a good fit above the waist of the person concerned.

Practise with it in the water, especially with children.

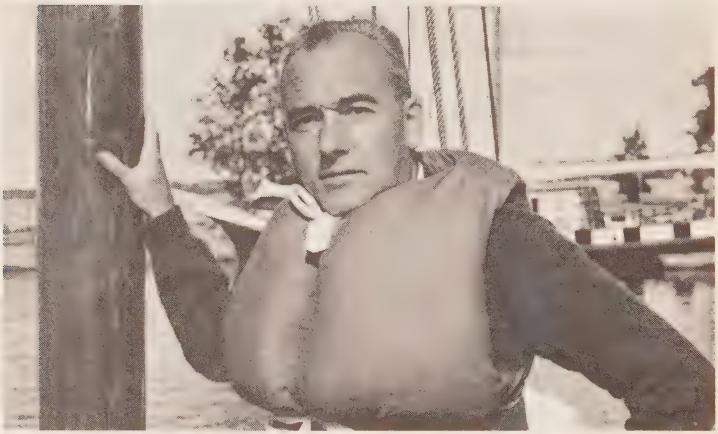
See to it that ALL lifejackets in your boat are in good, serviceable condition.

MOST IMPORTANT

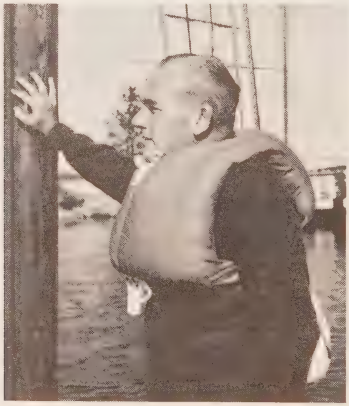
Maintain continual parental vigilance at all times when near water.

While Departmental officials are constantly striving to improve lifejacket design and construction, it must be borne in mind that a lifejacket is not a substitute for a boat and that a person in the water, even though he is wearing a lifejacket, may die from exposure to the elements or may drown in rough water.

How to Wear Lifejackets



The lifejacket seen here is an adult-sized kapok-filled vest model. The two views show how it should be worn. The ties, done in bows, should be secure enough to prevent them slipping loose accidentally.



These photos show how an adult-sized kapok-filled "keyhole" model life-jacket should be worn. Note how the tapes are pulled around the waist and tied securely in front.

LIFESAVING CUSHIONS

Approved lifesaving cushions should always be fitted to the body as shown in the illustrations and should never be worn on the back. They provide good flotation, are usually readily available in the event of sudden capsizing or sinking and in such an emergency can be of great value.

For this reason and because of the difficulty experienced in storage of lifejackets in small craft, the substitution of approved cushions is permitted in pleasure and passenger craft not more than 18 feet in length.

The superior lifesaving features of lifejackets when actually worn on the body are, however, recognized and the wearing of lifejackets, whether cushions are carried or not, is strongly recommended.

Seen here is the adult-sized unicellular foam vest model lifejacket, with collar. The tapes should be tied tightly, the waist tape pulled in to a snug, but not uncomfortable fit.

The lifejacket worn by this little girl is designed to support weights of from 45 to 90 pounds. It is a kapok-filled "keyhole" model.

This little boy is wearing a kapok-filled vest model life jacket, capable of supporting a child up to 50 pounds in weight.

SAFETY TIP: Why not mark all your safety equipment with either the name or the number of your boat? This facilitates identification in case of accident.

APPENDIX 1

Aircraft

Operators of pleasure craft should be aware that when float planes are taxiing on the water, the pilot's forward vision is somewhat restricted, except when the plane is moving slowly with the engine idling. When power is applied and the aircraft is committed to take-off it is no longer possible for the pilot to make any sudden change of course.

An aircraft approaching to land gradually slows down and in so doing becomes gradually less manœuvrable until the point of contact with the water surface, when it is even less manœuvrable than during the take-off. In addition during the landing the nose of the aircraft is held fairly high making it more difficult for the pilot to see any object that may unexpectedly cross the intended landing path.

In view of these facts, small boat operators are advised to take every precaution to avoid interfering with aircraft under way on the water and particularly when one is landing or taking-off, in which case every effort should be made to hold a steady course in order that the pilot of the aircraft may be able to select a clear path.

Reckless Operation

Motor boats, at high speed, can be particularly dangerous because of their wash or wake capsizing other craft, threatening swimmers and damaging shore installations, moored vessels, etc. A good look-out ahead must be kept at all times.

Reasonable speed must be maintained when circumstances demand it. It should also be remembered that a

motor boat has no more right to the use of the water than any other craft and that, beyond any legal aspects, it is only fair that consideration be shown for others.

The annoyance of noise and wash from motor boats is frequently the subject of complaints in this respect.

Reckless operation is dealt with under the Criminal Code, which provides for fines up to $500 and a possible ban on operation on any Canadian waters for one year.

Section 226(A) of the Code states that it is an offence to navigate or operate . . . "any vessel or any water skis, surf board, water sled or other towed object . . . carelessly, or in a manner or at a speed that is dangerous to navigation, life or limb, having regard to all the circumstances . . . "

Other offences are:

Failing to stop after being involved in a boating accident; operating a boat while impaired by alcohol or drugs; water skiing during the period from one hour after sunset to sunrise; failing to have at least two persons in the towing boat while water skiing.

Although enforcement of the various regulations is the responsibility of peace officers, i.e. members of the different police forces, it should be remembered that every boat operator has a personal responsibility to be aware of his obligations and privileges on the water. A list of the various statutes and regulations governing the operation of small boats will be found at the beginning of this book.

APPENDIX 2

Part VII of Small Vessel Regulations

Powers of Peace Officers

75. Any peace officer may, to the extent that it is necessary in connection with the enforcement of these

regulations, go on board any vessel and make such examination of the vessel and its equipment as he deems fit and may ask any pertinent questions of, and demand all reasonable assistance from, the owner or master or any person in charge or appearing to be in charge thereof.

76. A peace officer may order detention of a vessel and may take action by other reasonable and appropriate means at his disposal to prevent violations of Parts II,* III** and IV*** of these regulations.

77. A peace officer may, in order to promote safety, direct the movement of vessels; but, except in an emergency, no such directions shall be given in respect of vessels in a public harbour for which a harbour master is appointed, without the prior consent of the harbour master.

78. A signal to stop may consist of a series of short sharp blasts on a siren, whistle, horn or other sounding device, or any other readily understandable signal given by a vessel carrying a peace officer.

79. Every person shall obey any order given by a peace officer pursuant to these regulations.

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*Safety equipment for pleasure craft.

**Equipment for passenger carrying vessels not over 5 tons.

***Equipment for power-driven vessels not over 15 tons, that do not carry passengers and are not pleasure craft or fishing vessels.

APPENDIX 3

Part VIII of Small Vessel Regulations

Offences and Penalties

80. Any person who fails to license and mark a vessel in accordance with the Act or these regulations is

guilty of an offence and is liable on summary conviction to a fine not exceeding one hundred dollars.

81. Every person who fails to comply with or contravenes a regulation for which no other penalty is provided is guilty of an offence and is liable on summary conviction to a fine not exceeding one hundred dollars and, in default of payment, to a term of imprisonment not exceeding two months.

82. Every person who is the owner, charterer, hirer, master, operator or person in charge of a vessel that is operated contrary to the provisions of these regulations shall be deemed to have contravened such provisions unless, in any prosecution for such contravention, he establishes that the contravention took place without his knowledge or consent or that he exercised all due diligence to prevent its commission.

MARINE CHARTS AND RELATED PUBLICATIONS

Charts are designed to meet the needs of marine navigation. They show the shoreline, depths of water and the landmarks, beacons and buoys that help the navigator make a safe passage to his destination. It is always wise to study the chart before making a trip so that a safe route can be thought out in advance and the proposed tracks laid down. It is also good policy to note one's position at regular intervals during the trip so that if a fog or heavy rainstorm should suddenly block out the landmarks the navigator will know where he is and what course to follow to reach either his original destination or the nearest safe haven.

In many of the larger cities yacht clubs and power squadrons give instruction on the use of charts. There are also many publications dealing with this subject and it is recommended that the amateur navigator study these.

Although charts supply a wealth of details there is much information which the mariner needs which they cannot show. "Sailing Directions" are therefore published which contain a description of the coast and harbours, availability of fuel and supplies, speed limits and similar information.

In tidal waters information on tides and currents is important. This is published annually in the form of separate volumes for the Atlantic and Pacific coasts or pocket editions covering specific areas.

The Canadian Hydrographic Service will supply, on request and without charge, an Information Bulletin showing the chart coverage available for any specified area in Canada, together with a list of useful marine publications and the authorized agents from whom they may be purchased. Requests for these bulletins should be addressed to:—

Marine Chart Distribution,
Canadian Hydrographic Service,
Department of Mines and Technical Surveys,
615 Booth Street,
Ottawa, Ontario.

Canadian "Notices to Mariners", published weekly, contain important information including amendments to Canadian charts, lists of lights and fog signals, and lists of radio aids to marine navigation. These notices may be obtained free on request to:

Chief, Aids to Navigation,
Department of Transport,
Ottawa, Ont.

Information on the passage of pleasure boats through the St. Lawrence Seaway may be obtained on inquiry addressed to:

St. Lawrence Seaway Authority,

(Pre Clearance)

P.O. Box 98,

Cornwall, Ontario.

The following canals in Canada, St. Peters, Canso, St. Ours, Chambly, Ste. Anne, Carillon, Rideau, Murray and Trent, are operated by the Department of Transport. The department publishes a descriptive book called "Navigation Canals" giving full information on mileage and general data. "Navigation Canals" may be obtained on application to the Queen's Printer at Ottawa, price 25¢.

In addition to the above, the Trent, Rideau and Quebec Canal Offices prepare sailing instructions. Boat operators proposing to navigate any of the canals under the jurisdiction of the Department of Transport should request, from the Superintending Engineer of the canals concerned, a copy of the current edition of a descriptive circular which includes sailing instructions. These circulars are available on request at no charge from the following Canal Offices:—

Trent Canal Office, P.O. Box 567, Peterborough, Ont.

Rideau Canal Office, P.O. Box 902, Ottawa, Ont.

Quebec Canals Office, 305 Dorchester St. West, Montreal, Que.

RESUSCITATION BY ARTIFICIAL RESPIRATION

It is to everybody's benefit to have some knowledge of artificial respiration. Information on this subject may be obtained from

Information Services,

Department of National Health and Welfare,

Ottawa, Ont.

SEARCH AND RESCUE

The Department of Transport maintains Coast Guard Rescue Officers at the RCAF Search and Rescue centres at Halifax, N.S., Trenton, Ontario and Vancouver, B.C. Each of these centres is the headquarters for a co-ordinated network of agencies trained to search for and rescue vessels in distress.

The Coast Guard Rescue Officers at these centres distribute booklets covering the marine rescue organization for their respective areas. These booklets may be obtained free of charge on application to the following:—

Atlantic Area:

Coast Guard Rescue Officer,
Room 405, Maritime Area Command RCAF,
South Street, Halifax, N.S.

Great Lakes Area:

Coast Guard Rescue Officer,
Air Transport Command RCAF,
Trenton, Ont.

Pacific Area:

Coast Guard Rescue Officer,
Federal Building,
Vancouver, B.C.

If you are worried about a boat that hasn't arrived or returned in time, be sure to get in touch with one of these three centres.

Here is how you and your fellow power boat operators and owners of sailboats can assist in searches and help cut down on false alarms.

(a) Your boat or yacht club should appoint a safety officer for the day or week and all arrivals and departures should be reported to him.

(b) If you plan to go on a cruise, give your safety officer an itinerary with estimated times of departure and arrival at your destination.

(c) If you change your plans while under way, call your home club and possibly the police. This allays worry and prevents a needless alert that might set off a comprehensive air and marine search.

(d) Carry the required charts and serviceable compass in your boat at all times.

(e) Always carry the international distress signal. This is a square flag or an object resembling a square flag, and a ball or other circular object hoisted either above or below it. Flag and ball need not be of any particular colour, but the brighter they are, the better.

The signal may be made up of metal shapes which fold up when not in use. When hoisted, it will not only be visible at sea, but can also be picked up by radar,

both horizontally and vertically, from the surface as well as from the air. It may be made from fabric coloured bright orange, 72 inches by 45 inches in size, upon which are painted a large black disc and square. This is laid flat upon the cabin or wheelhouse top and can be seen very clearly from the air.

Other forms of distress signals are:

(a) A gun or other explosive fired at intervals of about a minute;

(b) A continuous sounding with any fog-signal apparatus;

(c) Rockets or shells, throwing red stars fired one at a time at short intervals;

(d) A signal made by radiotelegraphy or by any other signalling method consisting of the group . . . — — — . . . in the Morse Code;

(e) A signal sent by radiotelephony consisting of the spoken word "Mayday";

(f) The International Code Signal of distress indicated by N.C.;

(g) Waving of any unusual object, such as a piece of cloth or shirt tied to an oar or paddle;

(h) Flames on the vessel (as from a burning tar barrel, oil barrel, etc.);

(i) Red signal Marine Distress flare.

Two-way radiotelephone can provide a very effective means of obtaining help in cases of emergency if properly used. Coast Stations operated by the Department of Transport are strategically located on the sea coasts and Great Lakes in Canada. All these stations maintain guard on international radiotelephone distress and

calling frequency of 2182 Kc/s during the season of navigation. A similar service is provided on the U.S. coasts by the U.S. Coast Guard.

Many thousands of Canadian pleasure and commercial craft are fitted with radiotelephone and also maintain guard on 2182 Kc/s while at sea.

If you use two-way radiotelephone aboard your boat, the greatest efficiency in communications can be obtained by applying the correct procedures for calling and answering other stations and passing messages or information. Such procedures and other pertinent information relative to the licensing and operating of radiotelephone equipment may be found in the Department's booklet entitled "Radiotelephone Handbook (Maritime Services)" which can be obtained free of charge from any Radio Inspection Office, Telecommunications and Electronics Branch, Department of Transport.

Excerpts from Part VI of Small Vessel Regulations

Lights for Rowing Boats and Canoes

A rowing boat or a canoe shall exhibit a white light in the direction of any approaching vessel in sufficient time to prevent collision.

Lights for Vessels at Anchor

A vessel at anchor at any place other than where small vessels are customarily left at anchor shall exhibit a white light so constructed as to show a bright white light visible all around the horizon at a distance of at least one mile.

Use of Searchlights

No person shall direct the rays of a searchlight or other blinding light on a vessel under way in such a manner as to interfere with the vision of the person navigating or steering the other vessel.

Special Circumstances

In obeying and construing the requirements of this Part, every operator shall have due regard to all dangers of navigation and collision and to special circumstances, including the limitations of the vessels involved and the restricted manœuvrability of aircraft landing on or taking off from the water, and shall depart from the requirements of this Part if necessary in order to avoid immediate danger.

Precautions

Every operator shall keep a proper lookout and shall take every precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

Unnecessary Sounding of Whistle or Horn

No person on a vessel shall sound, authorize or permit the sounding of a horn, whistle or other signalling device unnecessarily.

Mooring to Navigational Aids

No person shall moor any vessel to any buoy, marker or beacon placed by a competent authority as an aid to navigation.

Obstruction of Channel or Fairway

No person shall, except in an emergency, anchor a vessel in any channel or fairway in such a manner as to obstruct the normal passage of other vessels.

A FEW QUESTIONS — YOU SUPPLY THE ANSWERS

1. Which side is which? Port side is the left side and Starboard is the right side facing forward.

True ☐ False ☐

2. What colour of lights? Red to port, green to starboard.

True ☐ False ☐

3. Rules of the Road

(a) Two power boats are meeting head on. Each alters course to Starboard. — True ☐ False ☐

(b) You are in a power boat. Another power boat is approaching from starboard on a collision course.
Would you give way ☐ or would you stand on? ☐

(c) Power boats have to give way to sail boats, rowboats and canoes — True ☐ False ☐

(d) You are about to overtake another boat.
Would you keep clear ☐
or would the vessel ahead keep out of your way? ☐

4. Licensing and Capacity Plates

(a) A pleasure boat under 20 tons must have a boat licence if it has an engine of 10 H.P. or more — True ☐ False ☐

(b) Outboard boats 16 feet in length or less must have a DOT load and capacity plate when fitted with a motor of 10 H.P. or more — True ☐ False ☐

5. Equipment

(a) Power boats and sailboats must carry an approved lifejacket for each person on board.— True ☐ False ☐

(b) Your lifejacket is required to bear the "approved" label of the DOT — True ☐ False ☐

6. Boat Operation

(a) When towing a water skier you must have at least two persons in the boat — True ☐ False ☐

(b) It is illegal to water ski from one hour after sunset to sunrise — True ☐ False ☐

(c) It is an offence if you do not stop after being involved in a boat accident — True ☐ False ☐

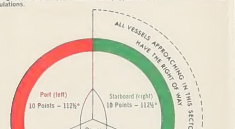
(d) It is an offence to operate a boat while impaired by alcohol or drugs — True ☐ False ☐

To be carried from sunset to sunrise

LIGHTS

Visibility
White Light – 2 miles
Colored Light – 1 mile

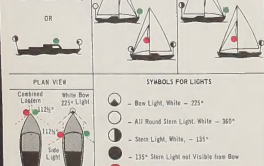
Boats sailing outside Canadian waters on both East and West coasts must be equipped with lights in accordance with the International Regulations for Preventing Collisions at Sea. Vessels so equipped comply with the Small Vessel Regulations.



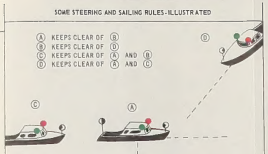
A Boat being overtaken by another Boat has the Right of Way ...

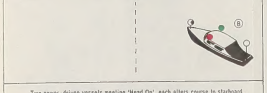
FOR VESSELS NOT OVER 26 FEET IN LENGTH.

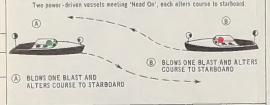
FOR VESSELS OVER 26 FEET IN LENGTH

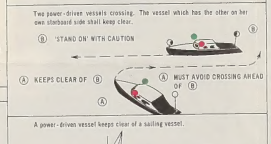


SOME STEERING AND SAILING RULES - ILLUSTRATED









WHISTLE SIGNALS

Great Lakes

(a) One blast — means "Altering course to starboard".
(b) Two blasts — mean "Altering course to port".
(c) Five or more blasts — mean "Emergency or danger signal" or "message not understood".

Note: Every power-driven vessel receiving such a signal from another shall promptly respond with the same signal or sound the danger signal.

WHISTLE SIGNALS — (continued)

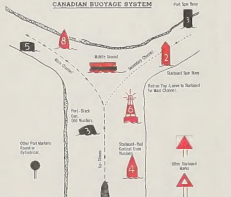
Waters Other Than the Great Lakes

(a) One blast — means "Altering course to starboard".
(b) Two blasts — mean "Altering course to port".
(c) Three blasts — mean "My engines are going astern".
(d) Five or more blasts — mean "Emergency or danger signal" or "message not understood".

Exemptions

A vessel not over 26 feet in length is not required to sound the maneuvering signals, but if she does not do so she shall be manoeuvred in such a manner as will prevent risk of collision or misunderstanding with any other vessel.

CANADIAN BUOYAGE SYSTEM



DO'S AND DON'TS

DO

- Head for the closest safe anchorage or landing when a storm threatens and avoid the temptation to "buck it".
- Observe the regulations regarding the presence of lifesaving equipment, using only that stamped or labelled "approved" by the Department of Transport.
- Assist any boat in distress. The waving, in a vertical circular motion, of a piece of light coloured material or a light by night is a distinctive distress signal.
- Slow down when passing dredges or water where divers may be working.
- Slow down when making sharp turns, or in bad weather.
- Slow down when passing row boats and canoes, especially in narrow waters.
- Learn the Rules of the Road — and practise them.
- When operating at night, carry a few red flares in a watertight container; the red flares used on railroads are efficient and inexpensive.
- Keep the bilges of the boat clean, free of oil, gasoline and rags, etc. Vent any enclosed areas into the open air.
- Check the battery and its ventilation.
- Respect your boat and know its limitations.
- Follow the regulations regarding fire precautions and fire extinguishing equipment.
- Carry an anchor and sufficient length of sound cable, rope or chain — at least five times the average anchorage depth. Be sure that the inboard end of the line is securely fastened to the boat.
- Wear a lifejacket when in small boats whether or not lifesaving cushions are carried.

DO'S AND DON'TS — (continued)

- Where practicable join a yacht or boat club and keep fully informed on regulations, etc.
- When engaged in extended cruising carry the latest corrected charts and related publications in your boat at all times.

DON'T

- Stand up or change seats in a small boat, particularly when the boat is full. If necessary, crouch low and keep the weight on the boat's centerline, holding on to both gunwales.
- Operate near swimmers.
- Mix liquor and boating.
- Use a leaky or poorly built boat.
- Cruise fast enough to create a dangerous swell when near small boats.
- Leave your tiller or steering wheel unattended, especially when under way in harbours, anchorages or narrow channels.
- Throw garbage overboard.
- Blow your horn or use the spotlight unnecessarily.
- Wait until the last minute to signify your intentions of obeying the Rules of the Road.
- Anchor close to other boats.
- Cruise at high speed in or near an anchorage.
- Hold impromptu races with other boats, since row boats, canoes and other very small craft are endangered by the wash.
- Attempt to swim ashore if your boat is capsized or swamped. Hang on to the boat until you are picked up.
- Be a "show-off".
- "Buzz" bathing beaches; swimmers are hard to see in the water.
- Carry out-dated charts and related publications in your boat. Always use the latest corrected editions at all times.

REQUIREMENTS FOR PLEASURE CRAFT

(Recommended on rowboats and canoes; mandatory on power and sailing craft.)

NOTE: "Approved" means approved by the Department of Transport.

Not Over 18 Feet in Length

1. One approved small vessel lifejacket or lifesaving cushion for each person on board.
2. Two oars and rowlocks or two paddles.
3. One bailer or one manual pump.
4. If equipped with an inboard motor, permanently fixed or built-in fuel tanks or a cooking or heating appliance that burns liquid or gaseous fuel, one class BI fire extinguisher.

Over 18 Feet But Not Over 26 Feet in Length

1. One approved small vessel lifejacket for each person on board.
2. Two oars and rowlocks, two paddles or one anchor with not less than 50 feet of cable, rope or chain.
3. One bailer or one manual pump.
4. If the vessel is power-driven or is equipped with a cooking or heating appliance that burns liquid or gaseous fuel, one class BI Fire Extinguisher.

Over 26 Feet But Not Over 40 Feet in Length

1. One approved small vessel lifejacket for each person on board.
2. One approved lifebuoy 30 inches, 24 inches or 20 inches in diameter.
3. One buoyant heaving line of not less than 50 feet in length.
4. One bailer and one manual or power-driven bilge pump.
5. Twelve pyrotechnic distress signals in a watertight container, of which not more than six may be daylight smoke signals.
6. One anchor with not less than 50 feet of cable, rope or chain.
7. If the vessel is power-driven or is equipped with a cooking or heating appliance that burns liquid or gasous fuel, one class BI fire extinguisher.
8. Sufficient lights and sound signalling apparatus to permit the vessel to be operated in compliance with Part VI of Small Vessel Regulations.

Over 40 Feet But Not Over 65 Feet in Length

1. One approved standard lifejacket or one approved small vessel lifejacket for each person on board.
2. One approved 30 inch lifebuoy or two approved 24 inch diameter lifebuoys.
3. One buoyant heaving line of not less than 50 feet in length.
4. Twelve pyrotechnic distress signals in a watertight container, of which not more than six may be daylight smoke signals.
5. One anchor with not less than 50 feet of cable, rope or chain.
6. Two fire buckets.
7. One manual or power-driven pump located outside the machinery space with one fire hose and nozzle whereby a jet of water can be directed into any part of the vessel.

REQUIREMENTS FOR PLEASURE CRAFT — (continued)

8. Efficient bilge pumping arrangements.
9. If the vessel is power-driven or is equipped with a cooking or heating appliance that burns liquid or gaseous fuel, one class BI1 fire extinguisher.
10. Sufficient lights and sound signalling apparatus to permit the vessel to be operated in compliance with Part VI of Small Vessel Regulations.

Over 65 Feet in Length

1. One approved standard lifejacket or one approved small vessel lifejacket for each person on board.
2. Two approved 30 inch diameter lifebuoys, one with a self-igniting light attached.
3. One buoyant heaving line of not less than 90 feet in length.
4. Twelve pyrotechnic distress signals in a watertight container of which not more than six may be daylight smoke signals.
5. One anchor with not less than 50 feet of cable, rope or chain.
6. Four fire buckets.
7. Two fire axes.
8. One power-driven pump located outside the machinery space with one fire hose and nozzle whereby a jet of water can be directed into any part of the vessel.
9. Efficient bilge pumping arrangements.
10. In each accommodation space, one class A11 fire extinguisher built in one case and more than three such extinguishers be carried.
11. In the machinery space, two class BII fire extinguishers, one located near the entrance.
12. Sufficient lights and sound signalling apparatus to permit the vessel to be operated in compliance with the *Regulations for Preventing Collisions at Sea* or the *Rules of the Road for the Great Lakes*

RACING TYPE VESSELS

Racing type vessels, when engaged in racing or preparation for racing and operated in conditions of clear visibility may carry, in lieu of the equipment prescribed elsewhere in this part.

(a) One approved racing type lifejacket, to be worn by the operator at all times, and
(b) If fitted with an inboard motor, one class BI fire extinguisher.

EQUIVALENT FIRE EXTINGUISHERS

Class	Soda Acid and Water GALLONS	Foam GALLONS	Carbon Dioxide Gas POUNDS	Dry Chemical POUNDS
AI	1	1	—	—
AII	2	2	—	—
BI	—	1	5	2
BII	—	2	10	5

Several organizations engaged in diving and related underwater operations have informed the Department of Transport of their intention to display a distinctive signal to indicate these activities.

This signal is in the form of a red square flag with a white diagonal stripe extending from the top of the hoist to the bottom of the fly and may be exhibited from a vessel, marker plant or floating marker. The signal is only indicative and confers no special rights or privileges on the exhibitor.

Marinas and others concerned are advised to exercise particular vigilance and care when navigating in waters where this signal is exhibited.

SAILBOATS, ROWBOATS AND CANOES HAVE THE RIGHT OF WAY OVER POWER-DRIVEN VESSELS, BUT EVERY OPERATOR SHALL KEEP A PROPER LOOKOUT AND SHALL TAKE EVERY PRECAUTION WHICH MAY BE REQUIRED BY THE ORDINARY PRACTICE OF SEAMEN, OR BY THE SPECIAL CIRCUMSTANCES OF THE CASE.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